REMARKS

1. Assignment of application and change of counsel

The Examiner is alerted that the present application has recently been assigned to L-3 Communications Corporation, and that newly substituted patent counsel is submitting the present amendment. A formal assignment and power of attorney will be submitted shortly.

2. Extra claims

The present amendment adds one additional independent claim and six extra claims over 20. The enclosed check includes the amount of $500.00 for the extra claim fees. Please deduct any other fees owing from, and credit any overpayments to, deposit account 501659.

3. Rejections under § 102

Claims 1 to 19 have been rejected as unpatentable over U.S. patent application 2002/0140698 to Robertson et al. Reconsideration of this rejection is respectfully requested.

a. Claim 1 and its dependent claims

Claim 1 has been amended to correct or improve its syntax and form, and also to clarify what is being claimed. Claim 1 as amended recites a method for dynamic sensor placement comprising positioning at least one sensory device in a scene of a 3D site model supported in a computer, and rendering in said computer an image of at least part of a coverage area of the sensory device within the scene of the 3D site model. The coverage area is derived in accordance with sensor parameters associated with the sensory device. The rendering of the image is derived for a view point in the 3D site model that is different from the positioning of said sensory device.

This method provides for an advantageous system for determining coverage of sensory devices, e.g., cameras, on a site, and allows a user to look at the coverage area of the sensor from a different viewpoint. This allows the user to see areas where the coverage of the sensory device does not extend, and to adjust the position of the sensory device in the real world to improve that coverage.

The cited Robertson application does not suggest a system of this type, nor does it provide any such benefits. Robertson discloses a system in which a 3D model is provided, and a "virtual camera" can be controlled to "fly " through the virtual 3D environment 80. see ¶ 0037. images are rendered for the viewing frustum 44 of the virtual camera as it moves around in the 3D environment 80.Robertson does not suggest rendering an image showing the coverage area of the virtual camera from a viewpoint different from that of the virtual camera. There are a number of ways of navigating the viewpoint of the virtual camera discussed, e.g., manual control (¶ 0036), speed-coupled flying (¶ 0037), or orbiting objects (¶ 0042). In all of these cases, however, the images rendered are form the point of view of the virtual camera, and there is no coverage area of any sensory device in another position shown. Robertson therefore fails to suggest the method claimed, and reconsideration of the rejection is respectfully requested.

Claims 2 to 6 depend from claim 1 and therefore distinguish therewith over the prior art.

b. Claim 7 and its dependent claims

Independent Claim 7 has also been amended to clarify its language and to correct some of its claim syntax. Claim 7 now recites a method for dynamic sensor placement comprising selecting a 3D site model supported in a computer, selecting a sensor for placement into the 3D site model, and rendering the sensor within a scene of said 3D site model in accordance with sensor parameters associated with the sensor. This rendering is performed by the computer for a

point of view other than the location of the sensor, and it includes at least part of a coverage area for the sensor derived in accordance with the 3D site model and the sensor parameters and a portion of the 3D site model that is not in the coverage area.

This method is similarly advantageous for placement of sensors in a real site, and it allows a user to identify parts of a site that are outside the coverage area of a proposed sensor, allowing the user to make a correction in the placement of the real sensor.

As set out above, Robertson teaches only a system that produces images for a viewing frustum of a virtual camera moving through the 3D environment. Robertson does not teach or suggest showing a part of the coverage area of a sensor and a part of the scene that is not in the coverage area of a sensor. Robertson therefore fails to suggest the claimed method.

Claims 8 to 12 depend from claim 7, and therefore distinguish therewith over the cited prior art.

c. Claim 13 and its dependent claims

Claim 13 has been amended to correct or improve its syntax and form, and also to clarify what is being claimed. Claim 13 as amended recites a computer-readable medium having instructions stored on it, that which, when executed cause a processor to perform the steps of positioning at least one sensor in a scene of a 3D model, and rendering dynamically images of the sensor in the scene of the 3D site model in accordance with sensor parameters associated with the sensor. The rendering renders an area covered by the sensor in accordance with the sensor parameters, and the images are from one or more viewpoints none of which are that of the sensor.

As expressed above, Robertson does not suggest display of the area covered by the virtual camera, except from the point of the virtual camera itself. The claimed instructions are

clearly for rendering for a point other than that of the sensor. Robertson therefore does not suggest a medium storing instructions as recited in claim 13, and reconsideration of the rejection thereof is respectfully requested.

Claims 14 to 16 depend from claim 13 and distinguish therewith over Robertson and the other prior art cited.

d. Claim 17 and its dependent claims

Claim 17 has also been amended to correct or improve its syntax and form, and to clarify what is being claimed. Claim 17 as amended recites an apparatus for dynamic sensor placement that comprises means for positioning at least one sensor in a scene of a 3D model, and means for rendering dynamically images of the sensor within the scene of the 3D site model in accordance with sensor parameters associated with the sensory device. The images are from one or more viewpoints none of which are that of the sensor.

Again, Robertson does not suggest rendering for any point of view other than that of the virtual camera frustum 44. Claim 17 therefore distinguishes over Robertson, together with its depending claims 18 and 19.

e. New claims 20 to 26

The present amendment adds new independent claim 20 and dependent claims 21 to 26.

New independent claim 20 recites a method for placing a plurality of surveillance cameras in a site. The method comprises providing scene data of a 3D model of the site, and providing position data defining discrete positions for each of a plurality of cameras in the 3D model, each camera being associated with data defining viewing parameters defining its coverage. With the computer an image of the site is rendered from a viewpoint based on the 3D model. The image shows at least a part of a coverage area in the 3D model determined from the

position data for at least one camera and its viewing parameters. The image is displayed so as to be viewed by a user.

No reference shows or suggests such a method that displays an image rendered with a 3D model to show a part of a coverage area of at least one of two cameras positioned in the model. This method is advantageous for putting surveillance cameras in a given site, as it allows the user to examine the areas of coverage of the cameras in the computer supported 3D model in a way that was not afforded by the prior art..

Claims 21 to 26 depend from claim 20 and therefore distinguish therewith over the prior art.

All pending claims having been shown to distinguish over the prior art in structure, function and result, formal allowance is respectfully requested.

Should any questions arise, the Examiner is invited to telephone attorney for applicant at 212-490-3285.

Respectfully submitted,

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